



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 – NEW ENGLAND  
5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

April 18, 2023

*via Electronic Mail*

Mr. Matthew Calacone  
Global Operations, Environment, Health & Safety  
General Electric Company  
1 Plastics Avenue  
Pittsfield, MA 01201

Re: Conditional Approval of General Electric's December 6, 2022, submittal titled *Upland Disposal Facility Conceptual Design Plan*, GE-Pittsfield/Housatonic River Site

Dear Mr. Calacone:

This letter contains the Environmental Protection Agency's (EPA) conditional approval of GE's Upland Disposal Facility Conceptual Design Plan (the "Plan"). The Plan is subject to the terms and conditions specified in the Consent Decree (CD) that was entered in U.S. District Court on October 27, 2000.

Pursuant to Section XV of the CD, EPA, after consultation with the Massachusetts Department of Environmental Protection, approves the Plan subject to the following conditions. Unless otherwise specified, all conditions shall be addressed in the Upland Disposal Facility ("UDF") Final Design Plan (the "Final Design"). GE shall submit the Final Design no later than 60 days after the date of EPA's approval of GE's Final UDF PDI Summary Report.

1. General Condition: In addition to the specific Conditions below, and understanding that much greater detail and specific content is forthcoming in GE's Final Design and the separate Operations, Monitoring, and Maintenance Plan, GE shall ensure such documents include, but not be limited to, the following content:
  - Manufacturers' specifications for all baseliner components (for example, GCL and HDPE liners) and material specifications for all earthen layers.
  - All stability and settlement calculations and supporting data.
  - The UDF Construction Quality Assurance Plan (CQAP).

- Discussion of and calculations for the ability of the Operations Layer to properly drain leachate to the collection system and protect the composite baseliner system from equipment operations.
  - A requirement that the Geocomposite Drainage Layer be tested in both the machine and transverse directions to allow for flexibility of panel placement during construction.
  - A Leak Detection Response Action Plan for the secondary leak detection system that outlines monitoring, testing, and (where necessary) corrective action for liquid levels that may be detected in the secondary system.
  - Discussion of the process for determining the post-closure use of the UDF site, including a requirement for GE to coordinate with the Town of Lee in developing the Final Cover/Closure Plan.
  - Stormwater system sizing calculations, stormwater Best Management Practices (BMPs), and details regarding the development of Stormwater Pollution Prevention Plans for stormwater management during construction, operations, and post-construction, in accordance with the cited ARARs in Table 2-1.
  - A Fill Plan to discuss sequencing of cells, intermediate covers, phased final cover placement, etc.
  - Two sub-surface cross-sections (east-west and north-south) that illustrate groundwater elevations in relation to UDF features including proposed baseliner and cap limits, underlying geology, selected monitoring well and piezometer screen intervals, the range of measured groundwater elevations during the PDI, and GE's determination of the seasonal high groundwater elevation, as approved by EPA.
  - Additional details regarding the disposition of existing stockpiled debris on-site and required testing, processing, and handling for the potential re-use of existing on-site soils or a description of the process and timing for evaluating and characterizing those materials.
  - A discussion of specific impacted habitat areas and GE's proposed plans for mitigation and restoration where required.
2. Section 2.3.5: In future submittals, GE shall define the term "piezometer" as compared to "monitoring well" and use the terms consistently throughout the submittals. (Note that Section 3.5.1 uses the terms interchangeably, or uses the term "piezometer well," which is not an accepted term.)
  3. Section 2.3.6: In future submittals, GE shall more accurately reference the bridge in question as the Schweitzer Bridge, as it is on Valley Street and is commonly known as "Schweitzer Bridge." EPA notes that the terminology "Crystal Street Bridge" is inaccurate and may lead to confusion.



4. Section 2.4 and Appendix A, drawing 3: GE shall ensure that Eversource is consulted regarding any proposed grade increases for the UDF to ensure that the grade increases meet clear distance requirements between the Eversource power lines and finished grades. GE shall also consult Eversource regarding any proposed pipe corridors for the UDF (for example, leachate pipes) that may fall within the easement limits. GE shall document its consultations with Eversource, including Eversource's need to access the easement area.
5. Section 2.7 and Drawing 5: GE does not discuss the eventual fate of leachate following collection in the leachate storage facility. Drawing 5 labels the facility as a storage/treatment facility and depicts the effluent conveyance pipe traveling northward to Woods Pond (although Drawing 5 notes the pipe as traveling to the river). GE shall provide clarification on the treatment and discharge of effluent from the leachate collection/treatment facility. If GE intends to ship the leachate off-site during initial remedial activities, then they shall provide leachate collection, storage, and management details in the Final Design for this stage. GE shall also indicate in the Final Design that if for future stages, on-site water treatment will be utilized, the management and treatment of leachate and discharge of treated effluent shall be in accordance with NPDES discharge limits as stated in Table 2-1 and include a discussion of the timing for providing design details regarding an on-site treatment system.
6. Section 2.8: GE shall include an evaluation (including mapping) of current surface water drainage features and routes across the entire site and how those drainage features will be altered by the UDF design. The evaluation shall include a discussion of areas (both on-site and off-site if applicable) subject to increased and decreased surface water runoff and any potential negative impacts of such a change.
7. Section 4.4.4: Due to the proximity of a documented vernal pool, GE shall consider the likelihood that vernal pool species may be attracted to the stormwater basins for breeding. GE shall evaluate and discuss potential options to make the infiltration basins less attractive to vernal pool species, based on drawdown time or substrate material, to the extent practicable and consistent with the purpose of those basins. In addition, GE shall evaluate areas outside of the stormwater management system for the possibility of attracting wildlife into other operational areas during construction and propose appropriate mitigation measures, if applicable.
8. Section 5: GE shall discuss measures to control any incidental releases of contaminated materials outside of the consolidation area baseliner footprint during construction and active operations prior to final capping of the UDF.
9. Appendix A, Drawings 3 and 4: GE shall describe the purpose of the access road extending north of the Northern Stormwater Basin and crossing the intermittent stream before terminating. GE shall clarify whether the access road will continue northward to the remainder of the parcel. In contrast, Drawing 5 shows the design grading limit terminating south of the intermittent stream. EPA notes that constructing a crossing over the intermittent stream, or even the roadway itself in proximity to the mapped wetlands, will require careful consideration of the wetland regulations described in Table 2-1 and will require additional details in the Final Design.



10. Appendix A, Drawing 3: The stormwater design shall discuss drainage and runoff measures (such as consideration of riprap apron or drainage pipe) to be taken to avoid washout of the bench located on the large side-slope fill northwest of the UDF consolidation limit to avoid washout of fill.
11. Appendix A, Drawing 3: GE shall ensure that proposed fills east of the North Storm Water Basin associated with the access road do not block runoff from the neighboring private parcel's western boundary from being able to drain to the wetlands to the north.
12. Appendix A, Drawing 3: GE shall review the stormwater design where the outboard access road ditch discharges on the northeast side of the UDF adjacent to the southwest corner of the neighboring private parcel. As currently shown, the discharge could adversely affect this neighboring parcel unless a culvert to the basin is proposed.
13. Appendix A, Drawing 3: Proposed grading on the southeast side of the UDF may lead to a small area of minor ponding between the UDF and Woodland Road at the approximate limit of site grading.
14. Appendix A, Drawing 3: A diversion berm or revised grading appears to be necessary southeast of the UDF along the approximate limit of site grading to direct runoff from the open access and leachate storage/treatment facility area to the proposed South Storm Water Basin as opposed to toward Woodland Road.
15. Appendix A, Drawing 3: The proposed UDF floor slopes are shown at 2%. The provisions of 310 CMR 19.110(7)(b)1.c require that low permeability soil layers have a minimum post-settlement slope of 2%. If the Final Design includes 2% baseliner slopes, differential foundation settlement calculations shall be provided to determine the minimum construction design floor slope necessary to maintain a minimum post-settlement slope of 2%.
16. Appendix A, Drawing 3: The Final Design shall assess the depth of the perimeter road drainage ditch at the north stormwater basin forebay and ensure it is of sufficient depth for the required pipe discharge to pass under the access road down to the forebay and storm water basin.
17. Appendix A, Drawing 3: GE shall show the side riser and sump locations on this plan.
18. Appendix A, Drawing 4: GE shall consider constructing a diversion berm on the downslope edge of the upper plateau of the UDF to direct runoff to one or more slope drains before flowing onto the 3:1 side slope to avoid potential erosion issues.
19. Appendix A, Drawing 4: A perforated drainage pipe is also recommended on the low end of the upper plateau to intercept final cover geocomposite drainage layer drainage from the plateau and direct it to the surface water management system to avoid exceeding the capacity on the side slope.

20. Appendix A, Drawing 5: The proposed pipe corridor north of the UDF is shown to cross the intermittent stream and wetland area buffer. The Final Design shall include details for this crossing, including design features to avoid potential impacts to the intermittent stream corridor.
21. Appendix A, Drawing 5: The proposed side riser pipe locations do not coincide with low points in the cell on the grading plan. GE shall call out the sump locations and dimensions on this drawing and on Figure 3.
22. Appendix A, Drawing 5: The Final Design shall include details for accessing the leachate pumps for maintenance from the top of the riser pipes, either on this drawing or drawing 10.
23. Appendix A, Drawing 6: GE shall include call-outs to the Final Cover Diversion Berm detail and the previously recommended diversion berm in Condition 18 at the edge of the plateau on these sections.
24. Appendix A, Drawing 7: GE shall weld the final cover HDPE to the primary side slope baseliner HDPE at the anchor trench to avoid potential leachate seepage between the baseliner and final cover.
25. Appendix A, Drawing 7: The Final Design shall detail the outlet for the final cover geocomposite drainage layer at toe of slope or include drainage components for the anchor trench to handle final cover Geocomposite drainage.
26. Appendix A, Drawing 7: GE shall weld the primary and secondary side slope baseliner HDPE together at the anchor trench to avoid water seepage into the leak detection layer.
27. Appendix A, Drawing 7: The call-out of detail 2/9 shall be labelled as Final Cover Diversion Berm, rather than Surface Water Diversion Berm, to be consistent with the actual detail on Drawing 9.
28. Appendix A, Drawing 8, Detail 1: The provisions of 310 CMR 19.110(4)(a) state that the baseliner system shall extend "...for the first five feet vertically on perimeter berms or side slopes...". This requirement shall be clarified in the drawings and may be applicable to the intercell berm detail.
29. Appendix A, Drawing 8, Detail 3: While Details 1 and 2 show the specific layers of the dual-baseliner system, the graphics used in Detail 3 appear to show a single liner extending over the intercell berm. In the Final Design, GE shall present sufficiently detailed graphics to depict the dual baseliner system of the intercell berm.
30. Appendix A, Drawing 9, Detail 1: The Geocomposite Clay Layer on 3:1 final cover side slopes may present issues due to low confining pressure limiting development of internal and interface shear strength. The Final Design shall include a specification with the required minimum internal and interface shear strength to achieve a desired and documented factor of safety. This specification shall reference confirmation tests that



shall be performed and documented under appropriate conditions (for example, confining pressure, hydrated conditions).

31. Appendix A, Drawing 9, Detail 2: GE shall specify erosion control matting (or equivalent measures) in the channel formed by the final cover diversion berm to reduce erosive flow forces until vegetation is established.
32. Appendix A, Drawing 10: Section call outs showing where these details are applicable shall be added to the applicable preceding drawings.
33. Appendix A, Drawing 10: There are some inconsistencies in line types throughout the plans for various geosynthetics that shall be corrected in the Final Design.
34. Appendix A, Drawing 10: There are some geosynthetic line types missing in certain details that shall be corrected in the Final Design.
35. Appendix A, Drawing 10, Detail 1: The detail shall be revised to show minimum depth of cover based on maximum anticipated freezing depth and traffic loads as well as overall dimensions of the force main trench.
36. Appendix A, Drawing 10, Detail 2: Direct contact of the riser pipe with the overlying geosynthetics (geosynthetic clay liner and non-woven geotextile) is not recommended. GE shall provide at least 6 inches of granular fill between top of pipe and geosynthetics (this may be stated but is not shown on the detail).
37. Appendix A, Drawing 10, Detail 2: GE shall clarify the detail to show that the primary leachate collection pipe does not penetrate the primary baseliner.
38. Appendix A, Drawing 10, Detail 4: Show the HDPE primary leachate collection pipe cleanout location on this detail in the Final Design.
39. Table 2-1: Applicable or Relevant and Appropriate Requirements for the UDF: GE shall include a revised ARARs chart in the Final Design that addresses updated and current information and the following preliminary comments. By this letter, EPA is not approving the ARARs chart contained in the Conceptual Plan. EPA will provide a final approval of the ARARs for the UDF in its approval of the Final Design.
  - a. GE shall delete all To Be Considered requirements listed on Page 1 of 9 of Table 2-1.
  - b. GE shall add a general reference to actions needed to restore, replicate, and/or mitigate lost or damaged resource areas in the Action to be Taken column for the Massachusetts Wetlands Protection Act. See Page 5 of 9.
  - c. On Page 9 for the Massachusetts Stormwater Management Standards, the Action to be Taken shall also add a reference to actions related to the management of contact and non-contact stormwater from the UDF after it is capped and closed.

- d. Add the following to the end of Note 1: "...such as the requirement to obtain permits for on-site actions."
- e. GE shall add to Table 2-1 the ARAR for the TSCA Regulations on Storage of PCB Remediation Waste listed on Attachment C of the Revised Permit, Page C-18. This ARAR is relevant to the storage of PCB Remediation Waste prior to the capping and closure of the UDF.
- f. GE shall add to Table 2-1 the ARAR for Clean Water Act NPDES Regulations listed on Attachment C of the Revised Permit, Page C-19. This ARAR is relevant to the discharge of water from the dewatering of sediments excavated from the river and any potential discharge of contact water, including effluent from the leachate treatment system.

EPA reserves all of its rights under the Decree, including but not limited to, the right to perform and/or require additional sampling, or response actions, if necessary, to meet the requirements of the Consent Decree. If there is any conflict between the Performance Standards as stated in the submittal and the Performance Standards as stated in the Consent Decree or the Revised Final Permit, the Consent Decree and/or the Revised Final Permit shall control. If you have any questions, please contact me at (617) 918-1721.

Sincerely,

**RICHARD FISHER**

Digitally signed by RICHARD  
FISHER  
Date: 2023.04.18 13:50:49 -04'00'

Richard Fisher  
EPA Remedial Project Manager

cc:

Dean Tagliaferro, EPA  
Anni Laughlin, EPA  
Tim Conway, EPA  
John Kilborn, EPA  
Josh Fontaine, EPA  
Christopher Smith, EPA  
Christopher Ferry, ASRC (EPA electronic repository)  
Andrew Silfer, GE  
Kevin Mooney, GE  
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Carol Papp, Connecticut DEEP  
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Molly Sperduto, Trustee, U.S. Fish. and Wildlife  
Mark Barash, U.S. Department of Interior  
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Mayor Linda Tyer, City of Pittsfield  
Jim McGrath, City of Pittsfield  
Andi Cambi, Pittsfield Health Director  
Michael Coakley, Pittsfield Economic Development Authority  
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Jeffrey Mickelson, Massachusetts DEP  
Mark Tisa, Massachusetts DFG  
Jon Regosin, Massachusetts DFG  
Melissa Provencher, Berkshire Regional Planning Commission  
Christopher J. Ketchen, Chief Administrative Officer, Lenox  
Town Administrator, Lee, (Christopher Brittain)  
Town Manager, Great Barrington (Mark Pruhenski)  
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Town Administrator, Sheffield (Rhonda LaBombard)  
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Mark Andrews, Wampanoag Tribe of Gay Head (Aquinnah)  
Bonnie Hartley, SMC  
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